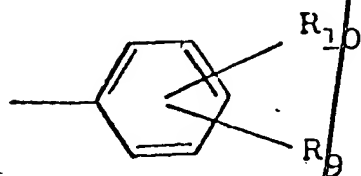


containing 2 to 6 carbon atoms, alkynyl groups containing 2 to 6 carbon atoms and groups of formula II:



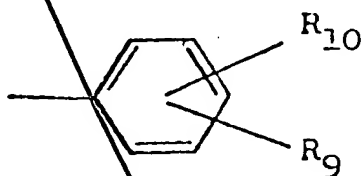
II

C1
See
61

in which R₉ and R₁₀, which re the same or different are selected from the group consisting of H, halo and alkoxy groups containing 1 to 3 carbon atoms; in which R₂ is selected from the group consisting of H and alkyl groups containing 1 to 3 carbon atoms; in which R₃ and R₄, which are the same or different are selected from the group consisting of H, straight or branched chain alkyl groups containing 1 to 4 carbon atoms, alkenyl groups having 3 to 6 carbon atoms, alkynyl groups having 3 to 6 carbon atooms, cycloalkyl groups in which the ring contains 3 to 7 carbon atoms, and a group of formula CHO or R₃ and R₄ together with the nitrogen atom form an optionally substituted heterocyclic ring having 5 or 6 atoms in the ring optionally containing further heteroatoms in addition to the nitrogen atom; in which R₅ and R₆, which are the same or different are selected from the group consisting of H, halo, trifluoromethyl, alkyl groups containing 1 to 3 carbon atoms, alkoxy groups containing 1 to 3 carbon atoms, alkylthio groups containing 1 to 3 carbon atoms and phenyl or R₅ and R₆, together with the carbon atoms to which they are attached, form a second benzene ring optionally substituted by at least one halo, alkyl or alkoxy group containing 1 to 4 carbon atoms or the substituents of the second benzene ring together with the two carbon atoms to which they are attached form a further benzene

~~ring], and their pharmaceutically acceptable salts]~~

Claim 2 (2x amended). A [C]compound of formula I [as claimed in] according to claim 1 in which R_1 is [selected from the group consisting of straight or] branched chain alkyl [groups containing 3 to] of up to 4 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylmethyl groups in which the cycloalkyl ring contains 3 to 6 carbon atoms [and] or a group[s] of the formula II:



II

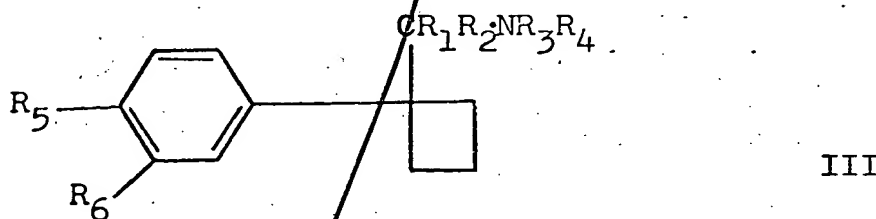
in which R_9 and R_{10} are selected from the group consisting of H, fluoro [or] and methoxy and [in which] R_2 is H or methyl.

Claim 3 (2x amended). A [C]compound of formula I [as claimed in] according to claim 2 in which R_1 is [selected from the group consisting of propyl,] isopropyl, [butyl,] isobutyl, secondary butyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl and phenyl, R_3 and R_4 are selected from the group consisting of H, methyl, ethyl and formyl, or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing one nitrogen atom and 4 or 5 carbon atoms which is optionally substituted by one or more alkyl groups or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing a second nitrogen atom which is optionally alkylated or a heterocyclic ring including one or more double bonds and R_5 and R_6 are selected from

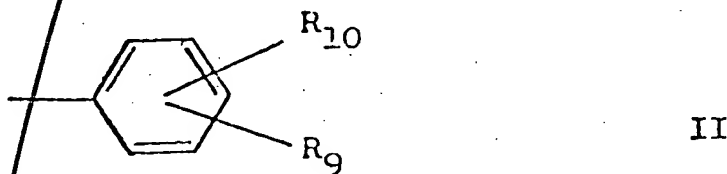
Sub E1
the group consisting of H, fluoro, chloro, bromo, iodo, trifluoromethyl, methyl, methoxy and phenyl or R_5 and R_6 together with the carbon atoms to which they are attached form a second benzene ring optionally substituted by halo.

Kindly cancel claims 4-6.

Claim 7 (2x amended). A [C]compound according to claim 1 of the formula III:



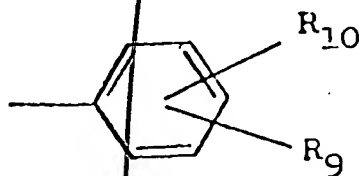
C
Sub E2
or a pharmaceutically acceptable salt thereof in which R_1 is [selected from the group consisting of straight or] branched chain alkyl [groups containing 3 to] of up to 6 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylalkyl groups in which the cycloalkyl group contains 3 to 6 carbon atoms and the alkyl group contains 1 to 3 carbon atoms, alkenyl groups containing 2 to 6 carbon atoms, alkynyl groups containing 2 to 6 carbon atoms and groups of formula II:



in which R_9 and R_{10} , which re the same or different are selected from the group consisting of H, halo and alkoxy groups containing 1 to 3 carbon atoms; in which R_2 is selected from the group consisting of H and alkyl groups containing 1 to 3 carbon atoms;

in which R_3 and R_4 , which are the same or different are selected from the group consisting of H, straight or branched chain alkyl groups containing 1 to 4 carbon atoms, alkenyl groups having 3 to 6 carbon atoms, alkynyl groups having 3 to 6 carbon atoms, cycloalkyl groups in which the ring contains 3 to 7 carbon atoms, and a group of formula CHO or R_3 and R_4 together with the nitrogen atom form an optionally substituted heterocyclic ring having 5 or 6 atoms in the ring optionally containing further heteroatoms in addition to the nitrogen atom; in which R_5 and R_6 , which are the same or different are selected from the group consisting of H, halo, trifluoromethyl, alkyl groups containing 1 to 3 carbon atoms, alkoxy groups containing 1 to 3 carbon atoms, alkylthio groups containing 1 to 3 carbon atoms and phenyl or R_5 and R_6 , together with the carbon atoms to which they are attached, form a second benzene ring optionally substituted by at least one halo, alkyl or alkoxy group containing 1 to 4 carbon atoms or the substituents of the second benzene ring together with the two carbon atoms to which they are attached form a further benzene ring[; and their pharmaceutically acceptable salts].

Claim 8 (2x amended). A [C]compound [of formula III as claimed in] according to claim 7 in which R_1 is [selected from the group consisting of straight or] branched chain alkyl [groups containing 3 to] of up to 4 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylmethyl groups in which the cycloalkyl ring contains 3 to 6 carbon atoms [and] or a group[s] of the formula II:



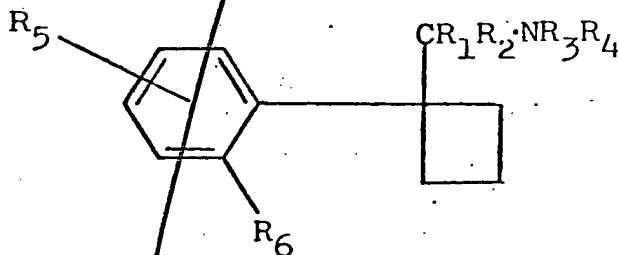
II

in which R_9 and R_{10} are selected from the group consisting of H, fluoro [or] and methoxy and [in which] R_2 is H or methyl.

Sub C2
C2
Claim 9 (2x amended). A [C]compound [of formula III as claimed in] according to claim 7 in which R_1 is [selected from the group consisting of propyl,] isopropyl, [butyl,] isobutyl, secondary butyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl and phenyl, R_3 and R_4 are selected from the group consisting of H, methyl, ethyl and formyl, or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing one nitrogen atom and 4 or 5 carbon atoms which is optionally substituted by one or more alkyl groups or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing a second nitrogen atom which is optionally alkylated or a heterocyclic ring including one or more double bonds and R_5 and R_6 are selected from the group consisting of H, fluoro, chloro, bromo, iodo, trifluoromethyl, methyl, methoxy and phenyl or R_5 and R_6 together with the carbon atoms to which they are attached form a second benzene ring optionally substituted by halo.

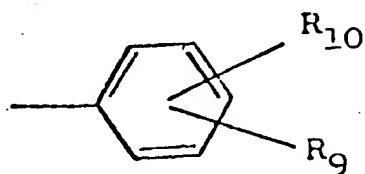
Kindly cancel claims 10-12.

Claim 13 (2x amended). A [C]compound according to claim 1 of the formula IV:



or a pharmaceutically acceptable salt thereof in which R_1 is

[selected from the group consisting of straight or] branched chain alkyl [groups containing 3 to] of up to 6 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylalkyl groups in which the cycloalkyl group contains 3 to 6 carbon atoms and the alkyl group contains 1 to 3 carbon atoms, alkenyl groups containing 2 to 6 carbon atoms, alkynyl groups containing 2 to 6 carbon atoms and groups of formula II:



II

C3
Sub
G3

in which R_9 and R_{10} , which are the same or different are selected from the group consisting of H, halo and alkoxy groups containing 1 to 3 carbon atoms; in which R_2 is selected from the group consisting of H and alkyl groups containing 1 to 3 carbon atoms; in which R_3 and R_4 , which are the same or different are selected from the group consisting of H, straight or branched chain alkyl groups containing 1 to 4 carbon atoms, alkenyl groups having 3 to 6 carbon atoms, alkynyl groups having 3 to 6 carbon atoms, cycloalkyl groups in which the ring contains 3 to 7 carbon atoms, and a group of formula CHO or R_3 and R_4 together with the nitrogen atom form an optionally substituted heterocyclic ring having 5 or 6 atoms in the ring optionally containing further heteroatoms in addition to the nitrogen atom; in which R_5 [and R_6 , which are the same or different are selected from the group consisting of] is H, halo, trifluoromethyl, alkyl groups containing 1 to 3 carbon atoms, alkoxy groups containing 1 to 3 carbon atoms, alkylthio groups containing 1 to 3 carbon atoms [and] or phenyl [or R_5 and

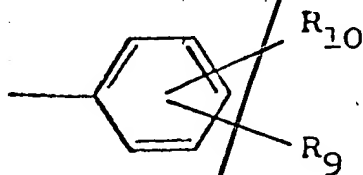
C³
Feb
#67

R₆, together with the carbon atoms to which they are attached, form a second benzene ring optionally substituted by at least one halo, alkyl or alkoxy group containing 1 to 4 carbon atoms or the substituents of the second benzene ring together with the two carbon atoms to which they are attached form a further benzene ring; and their pharmaceutically acceptable salts] and R₆ is fluoro or methyl.

Kindly cancel claim 14.

C⁴

Claim 15 (2x amended). A [C]compound [of formula IV as claimed in] according to claim 13 in which R₁ is [selected from the group consisting of propyl,] isopropyl, [butyl,] isobutyl, secondary butyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl [and phenyl] or a group of the formula II:



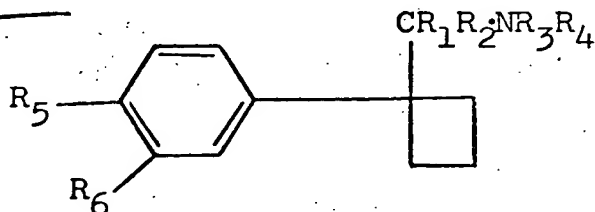
II

in which R₉ and R₁₀ are selected from the group consisting of H, fluoro and methoxy, R₂ is H or methyl, R₃ and R₄ are selected from the group consisting of H, methyl, ethyl and formyl, or R₃ and R₄ together with the nitrogen atom to which they are attached form a heterocyclic ring containing one nitrogen atom and 4 or 5 carbon atoms which is optionally substituted by one or more alkyl groups or R₃ and R₄ together with the nitrogen atom to which they are attached form a heterocyclic ring containing a second nitrogen

atom which is optionally alkylated or a heterocyclic ring including one or more double bonds, R_5 is H, fluoro, chloro, bromo, iodo, trifluoromethyl, methyl, methoxy or phenyl and R_6 is fluoro or methyl.

Kindly cancel claims 16 to 24.

Claim 42 (2x amended). A [C]compound according to claim 1 of the formula III:



PS
CS
or a pharmaceutically acceptable salt thereof in which R_1 is [selected from the group consisting of propyl,] isobutyl [and] ~~or phenyl~~; R_2 is H; R_3 is H, methyl or ethyl; R_4 is H, methyl or ethyl; R_5 is chloro; and R_6 is H or chloro [and their pharmaceutically acceptable salts].

Claim 43 (2x amended). A [c]Compound of claim 42 which is 1-[1-(4-chlorophenyl)cyclobutyl]butylamine [and its] or a pharmaceutically acceptable salt[s] thereof.

Claim 44 (2x amended). A [c]Compound of claim 42 which is N,N-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]- butylamine [and its] or a pharmaceutically acceptable salt[s] thereof.

Claim 45 (2x amended). A [c]Compound of claim 42 which is N-methyl-1-[1-(4-dichlorophenyl)cyclobutyl]- butylamine [and its] or a pharmaceutically acceptable salt[s] thereof.

Claim 46 (2x amended). A [c]Compound of claim 42 which is N,N-dimethyl-1-[1-(3,4-dichlorophenyl)cyclobutyl]- butylamine [and its] or a pharmaceutically acceptable salt[s] thereof.

¹⁰
Claim 47 (2x amended). A [c]Compound of claim 42 which is N-methyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methyl-butylamine [and its] or a pharmaceutically acceptable salt[s] thereof.

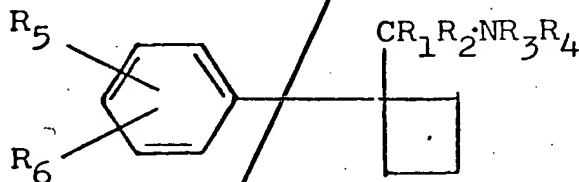
C5
Claim 48 (2x amended). A [c]Compound of claim 42 which is N,N-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine [and its] or a pharmaceutically acceptable salt[s] thereof.

Claim 49 (2x amended). A [c]Compound of claim 42 which is N,N-dimethyl-1-[1-(3,4-dichlorophenyl)cyclobutyl]-3-methylbutylamine [and its] or a pharmaceutically acceptable salt[s] thereof.

C6
Claim 52¹³ (2x amended). A [c]Compound of claim 42 which is α -[1-(4-chlorophenyl)cyclobutyl]benzylamine [and its] or a pharmaceutically acceptable salt[s] thereof.

Kindly add new claims 53-82.

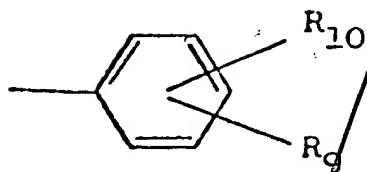
Claim 53. A pharmaceutical composition useful for treating depression in humans which comprises an anti-depressantly effective amount of a compound of the formula I:



or a pharmaceutically acceptable salt thereof in which R₁ is branched chain alkyl of up to 6 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylalkyl groups in which the cycloalkyl group contains 3 to 6 carbon atoms and the alkyl group contains 1 to 3 carbon atoms, alkenyl groups containing 2 to

C6
Feb 21
-10-

6 carbon atoms, alkynyl groups containing 2 to 6 carbon atoms and groups of formula II:

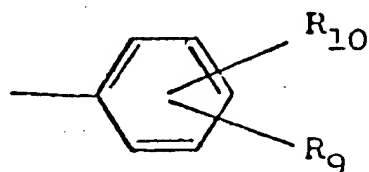


II

C7
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25

in which R_9 and R_{10} , which re the same or different are selected from the group consisting of H, halo and alkoxy groups containing 1 to 3 carbon atoms; in which R_2 is selected from the group consisting of H and alkyl groups containing 1 to 3 carbon atoms; in which R_3 and R_4 , which are the same or different are selected from the group consisting of H, straight or branched chain alkyl groups containing 1 to 4 carbon atoms, alkenyl groups having 3 to 6 carbon atoms, alkynyl groups having 3 to 6 carbon atoms, cycloalkyl groups in which the ring contains 3 to 7 carbon atoms, and a group of formula CHO or R_3 and R_4 together with the nitrogen atom form an optionally substituted heterocyclic ring having 5 or 6 atoms in the ring optionally containing further heteroatoms in addition to the nitrogen atom; in which R_5 and R_6 , which are the same or different are selected from the group consisting of H, halo, trifluoromethyl, alkyl groups containing 1 to 3 carbon atoms, alkoxy groups containing 1 to 3 carbon atoms, alkylthio groups containing 1 to 3 carbon atoms and phenyl or R_5 and R_6 , together with the carbon atoms to which they are attached, form a second benzene ring optionally substituted by at least one halo, alkyl or alkoxy group containing 1 to 4 carbon atoms or the substituents of the second benzene ring together with the two carbon atoms to which they are attached form a further benzene

Claim 54 . A composition according to claim 53 in which R_1 is branched chain alkyl of up to 4 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylmethyl groups in which the cycloalkyl ring contains 3 to 6 carbon atoms or a group of the formula II:



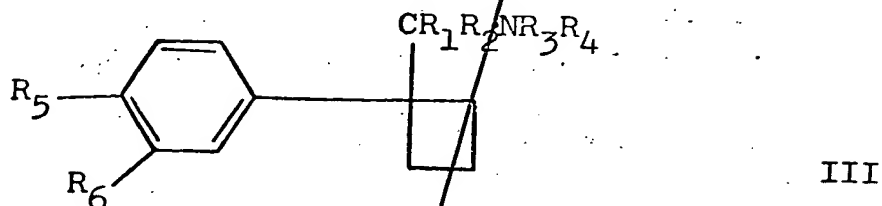
II

in which R_9 and R_{10} are selected from the group consisting of H, fluoro and methoxy and R_2 is H or methyl.

Claim 55 . A composition according to claim 54 in which R_1 is isopropyl, isobutyl, secondary butyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl and phenyl, R_3 and R_4 are selected from the group consisting of H, methyl, ethyl and formyl, or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing one nitrogen atom and 4 or 5 carbon atoms which is optionally substituted by one or more alkyl groups or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing a second nitrogen atom which is optionally alkylated or a heterocyclic ring including one or more double bonds and R_5 and R_6 are selected from the group consisting of H, fluoro, chloro, bromo, iodo, trifluoromethyl, methyl, methoxy and phenyl or R_5 and R_6 together with the carbon atoms to which they are attached form a second

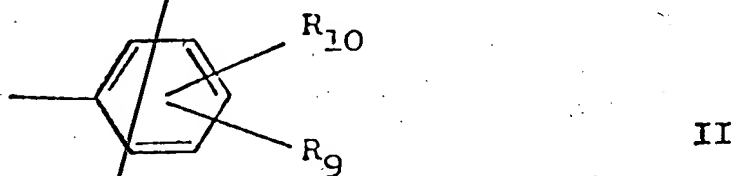
benzene ring optionally substituted by halo.

Claim 56. A composition according to claim 53 wherein the compound is of the formula III:



C1
Feb
E5

or a pharmaceutically acceptable salt thereof in which R_1 is branched chain alkyl of up to 6 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylalkyl groups in which the cycloalkyl group contains 3 to 6 carbon atoms and the alkyl group contains 1 to 3 carbon atoms, alkenyl groups containing 2 to 6 carbon atoms, alkynyl groups containing 2 to 6 carbon atoms and groups of formula II:

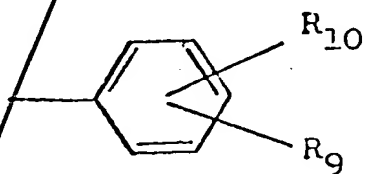


in which R_9 and R_{10} , which re the same or different are selected from the group consisting of H, halo and alkoxy groups containing 1 to 3 carbon atoms; in which R_2 is selected from the group consisting of H and alkyl groups containing 1 to 3 carbon atoms; in which R_3 and R_4 , which are the same or different are selected from the group consisting of H, straight or branched chain alkyl groups containing 1 to 4 carbon atoms, alkenyl groups having 3 to 6 carbon atoms, alkynyl groups having 3 to 6 carbon atoms, cycloalkyl groups in which the ring contains 3 to 7 carbon atoms,

C7
Sub
E5

and a group of formula CHO or R_3 and R_4 together with the nitrogen atom form an optionally substituted heterocyclic ring having 5 or 6 atoms in the ring optionally containing further heteroatoms in addition to the nitrogen atom; in which R_5 and R_6 , which are the same or different are selected from the group consisting of H, halo, trifluoromethyl, alkyl groups containing 1 to 3 carbon atoms, alkoxy groups containing 1 to 3 carbon atoms, alkylthio groups containing 1 to 3 carbon atoms and phenyl or R_5 and R_6 , together with the carbon atoms to which they are attached, form a second benzene ring optionally substituted by at least one halo, alkyl or alkoxy group containing 1 to 4 carbon atoms or the substituents of the second benzene ring together with the two carbon atoms to which they are attached form a further benzene ring.

Claim 57 . A composition according to claim 56 in which R_1 is branched chain alkyl of up to 4 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylmethyl groups in which the cycloalkyl ring contains 3 to 6 carbon atoms or a group of the formula II:



II

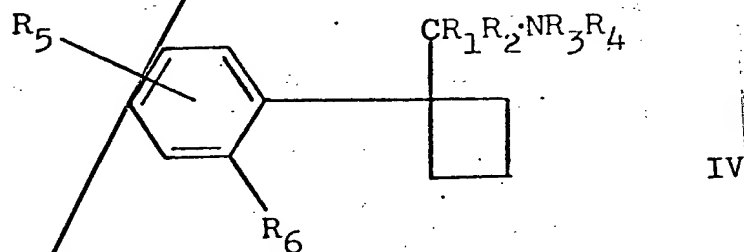
in which R_9 and R_{10} are selected from the group consisting of H, fluoro and methoxy and R_2 is H or methyl.

Claim 58 . A composition according to claim 56 in which R_1 is isopropyl, isobutyl, secondary butyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl,

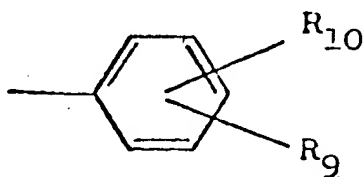
C7
Sub
E5

cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl and phenyl, R_3 and R_4 are selected from the group consisting of H, methyl, ethyl and formyl, or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing one nitrogen atom and 4 or 5 carbon atoms which is optionally substituted by one or more alkyl groups or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing a second nitrogen atom which is optionally alkylated or a heterocyclic ring including one or more double bonds and R_5 and R_6 are selected from the group consisting of H, fluoro, chloro, bromo, iodo, trifluoromethyl, methyl, methoxy and phenyl or R_5 and R_6 together with the carbon atoms to which they are attached form a second benzene ring optionally substituted by halo.

Claim 59. A composition according to claim 53 wherein the compound of the formula IV:



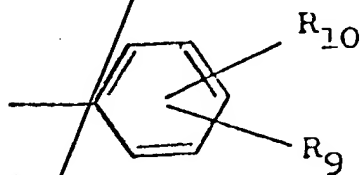
or a pharmaceutically acceptable salt thereof in which R_1 is branched chain alkyl of up to 6 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylalkyl groups in which the cycloalkyl group contains 3 to 6 carbon atoms and the alkyl group contains 1 to 3 carbon atoms, alkenyl groups containing 2 to 6 carbon atoms, alkynyl groups containing 2 to 6 carbon atoms and groups of formula II:



C⁷
Just
GC5

in which R_9 and R_{10} , which are the same or different are selected from the group consisting of H, halo and alkoxy groups containing 1 to 3 carbon atoms; in which R_2 is selected from the group consisting of H and alkyl groups containing 1 to 3 carbon atoms; in which R_3 and R_4 , which are the same or different are selected from the group consisting of H, straight or branched chain alkyl groups containing 1 to 4 carbon atoms, alkenyl groups having 3 to 6 carbon atoms, alkynyl groups having 3 to 6 carbon atoms, cycloalkyl groups in which the ring contains 3 to 7 carbon atoms, and a group of formula CHO or R_3 and R_4 together with the nitrogen atom form an optionally substituted heterocyclic ring having 5 or 6 atoms in the ring optionally containing further heteroatoms in addition to the nitrogen atom; in which R_5 is H, halo, trifluoromethyl, alkyl groups containing 1 to 3 carbon atoms, alkoxy groups containing 1 to 3 carbon atoms, alkylthio groups containing 1 to 3 carbon atoms or phenyl and R_6 is fluoro or methyl.

Claim 60 . A composition according to claim 59 in which R_1 is isopropyl, isobutyl, secondary butyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl or a group of the formula II:

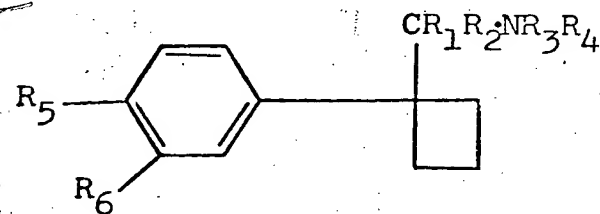


II

in which R_9 and R_{10} are selected from the group consisting of H,

fluoro and methoxy, R_2 is H or methyl, R_3 and R_4 are selected from the group consisting of H, methyl, ethyl and formyl or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing one nitrogen atom and 4 or 5 carbon atoms which is optionally substituted by one or more alkyl groups or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing a second nitrogen atom which is optionally alkylated or a heterocyclic ring including one or more double bonds, R_5 is H, fluoro, chloro, bromo, iodo, trifluoromethyl, methyl, methoxy or phenyl and R_6 is fluoro or methyl.

Claim 61. A composition according to claim 53 wherein the compound is of the formula III:



or a pharmaceutically acceptable salt thereof in which R_1 is isobutyl or phenyl; R_2 is H; R_3 is H, methyl or ethyl; R_4 is H, methyl or ethyl; R_5 is chloro; and R_6 is H or chloro.

Claim 62. A composition according to claim 61 wherein the compound is 1-[1-(4-chlorophenyl)cyclobutyl]butylamine or a pharmaceutically acceptable salt thereof.

Claim 63. A composition according to claim 61 wherein the compound is N,N-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-butylamine or a pharmaceutically acceptable salt thereof.

Claim 64. A composition according to claim 61 wherein the compound is N-methyl-1-[1-(4-dichlorophenyl)cyclobutyl]-

butylamine or a pharmaceutically acceptable salt thereof.

Claim 65 . A composition according to claim 61 wherein the compound is N,N-dimethyl-1-[1-(3,4-dichlorophenyl)cyclobutyl]-butylamine or a pharmaceutically acceptable salt thereof.

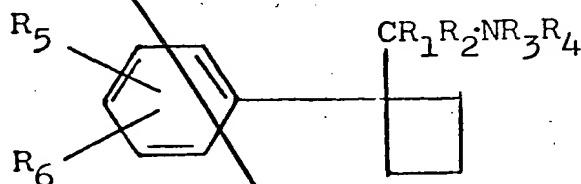
Claim 66 . A composition according to claim 61 wherein the compound is N-methyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine or a pharmaceutically acceptable salt thereof.

Claim 67 . A composition according to claim 61 wherein the compound is N,N-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-3-methylbutylamine or a pharmaceutically acceptable salt thereof.

Claim 68 . A composition according to claim 61 wherein the compound is N,N-dimethyl-1-[1-(3,4-dichlorophenyl)cyclobutyl]-3-methylbutylamine or a pharmaceutically acceptable salt thereof.

Claim 69 . A composition according to claim 61 wherein the compound is α -[1-(4-chlorophenyl)cyclobutyl]benzylamine or a pharmaceutically acceptable salt thereof.

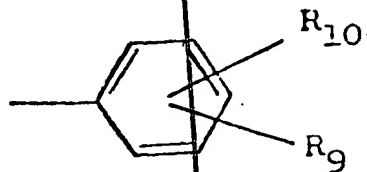
Claim 70. A method of treating depression in humans which comprises administering to a human in need thereof an anti-depressantly effective amount of a compound of the formula I:



I

or a pharmaceutically acceptable salt thereof in which R_1 is branched chain alkyl of up to 6 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylalkyl groups in which the cycloalkyl group contains 3 to 6 carbon atoms and the alkyl

group contains 1 to 3 carbon atoms, alkenyl groups containing 2 to 6 carbon atoms, alkynyl groups containing 2 to 6 carbon atoms and groups of formula II:



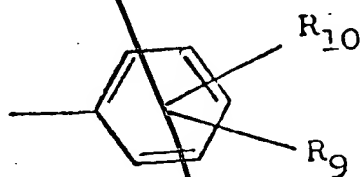
II

in which R_9 and R_{10} , which re the same or different are selected from the group consisting of H, halo and alkoxy groups containing 1 to 3 carbon atoms; in which R_2 is selected from the group consisting of H and alkyl groups containing 1 to 3 carbon atoms; in which R_3 and R_4 , which are the same or different are selected from the group consisting of H, straight or branched chain alkyl groups containing 1 to 4 carbon atoms, alkenyl groups having 3 to 6 carbon atoms, alkynyl groups having 3 to 6 carbon atoms, cycloalkyl groups in which the ring contains 3 to 7 carbon atoms, and a group of formula CHO or R_3 and R_4 together with the nitrogen atom form an optionally substituted heterocyclic ring having 5 or 6 atoms in the ring optionally containing further heteroatoms in addition to the nitrogen atom; in which R_5 and R_6 , which are the same or different are selected from the group consisting of H, halo, trifluoromethyl, alkyl groups containing 1 to 3 carbon atoms, alkoxy groups containing 1 to 3 carbon atoms, alkylthio groups containing 1 to 3 carbon atoms and phenyl or R_5 and R_6 , together with the carbon atoms to which they are attached, form a second benzene ring optionally substituted by at least one halo, alkyl or alkoxy group containing 1 to 4 carbon atoms or the substituents of the second benzene ring together with the two

C 7
Sub
PC 6

carbon atoms to which they are attached form a further benzene ring, in combination with a pharmaceutically acceptable carrier.

Claim 71 . A method according to claim 70 in which R_1 is branched chain alkyl of up to 4 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylmethyl groups in which the cycloalkyl ring contains 3 to 6 carbon atoms or a group of the formula II:



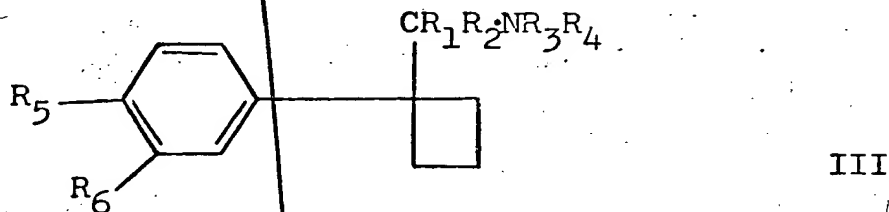
II

in which R_9 and R_{10} are selected from the group consisting of H, fluoro and methoxy and R_2 is H or methyl.

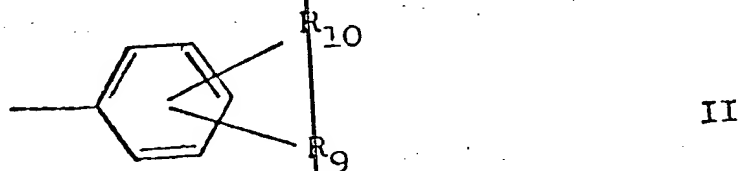
Claim 72 . A method according to claim 71 in which R_1 is isopropyl, isobutyl, secondary butyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl and phenyl, R_3 and R_4 are selected from the group consisting of H, methyl, ethyl and formyl, or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing one nitrogen atom and 4 or 5 carbon atoms which is optionally substituted by one or more alkyl groups or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing a second nitrogen atom which is optionally alkylated or a heterocyclic ring including one or more double bonds and R_5 and R_6 are selected from the group consisting of H, fluoro, chloro, bromo, iodo, trifluoromethyl, methyl, methoxy and phenyl or R_5 and R_6 together with the carbon atoms to which they

are attached form a second benzene ring optionally substituted by halo.

Claim 73. A method according to claim 70 wherein the compound is of the formula III:



or a pharmaceutically acceptable salt thereof in which R_1 is branched chain alkyl of up to 6 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylalkyl groups in which the cycloalkyl group contains 3 to 6 carbon atoms and the alkyl group contains 1 to 3 carbon atoms, alkenyl groups containing 2 to 6 carbon atoms, alkynyl groups containing 2 to 6 carbon atoms and groups of formula II:

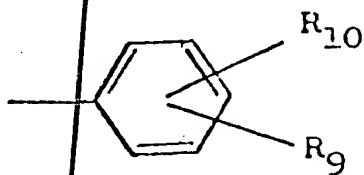


in which R_9 and R_{10} , which re the same or different are selected from the group consisting of H, halo and alkoxy groups containing 1 to 3 carbon atoms; in which R_2 is selected from the group consisting of H and alkyl groups containing 1 to 3 carbon atoms; in which R_3 and R_4 , which are the same or different are selected from the group consisting of H, straight or branched chain alkyl groups containing 1 to 4 carbon atoms, alkenyl groups having 3 to 6 carbon atoms, alkynyl groups having 3 to 6 carbon atoms,

C7
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EC6

cycloalkyl groups in which the ring contains 3 to 7 carbon atoms, and a group of formula CHO or R_3 and R_4 together with the nitrogen atom form an optionally substituted heterocyclic ring having 5 or 6 atoms in the ring optionally containing further heteroatoms in addition to the nitrogen atom; in which R_5 and R_6 , which are the same or different are selected from the group consisting of H, halo, trifluoromethyl, alkyl groups containing 1 to 3 carbon atoms, alkoxy groups containing 1 to 3 carbon atoms, alkylthio groups containing 1 to 3 carbon atoms and phenyl or R_5 and R_6 , together with the carbon atoms to which they are attached, form a second benzene ring optionally substituted by at least one halo, alkyl or alkoxy group containing 1 to 4 carbon atoms or the substituents of the second benzene ring together with the two carbon atoms to which they are attached form a further benzene ring.

Claim 74 . A method according to claim 73 in which R_1 is branched chain alkyl of up to 4 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylmethyl groups in which the cycloalkyl ring contains 3 to 6 carbon atoms or a group of the formula II:



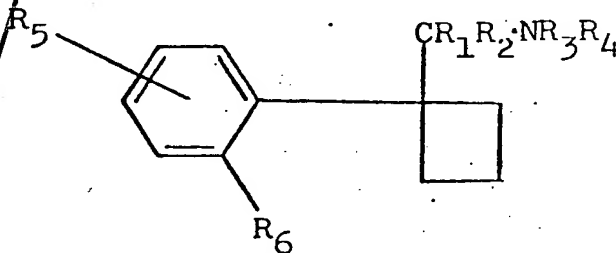
II

in which R_9 and R_{10} are selected from the group consisting of H, fluoro and methoxy and R_2 is H or methyl.

Claim 75 . A method according to claim 73 in which R_1 is isopropyl, isobutyl, secondary butyl, cyclopropyl, cyclobutyl,

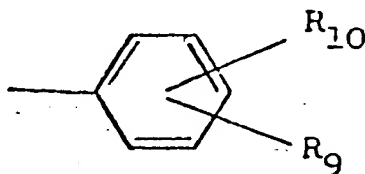
cyclopentyl, cyclohexyl, cycloheptyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl and phenyl, R_3 and R_4 are selected from the group consisting of H, methyl, ethyl and formyl, or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing one nitrogen atom and 4 or 5 carbon atoms which is optionally substituted by one or more alkyl groups or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing a second nitrogen atom which is optionally alkylated or a heterocyclic ring including one or more double bonds and R_5 and R_6 are selected from the group consisting of H, fluoro, chloro, bromo, iodo, trifluoromethyl, methyl, methoxy and phenyl or R_5 and R_6 together with the carbon atoms to which they are attached form a second benzene ring optionally substituted by halo.

Claim 76. A method according to claim 73 wherein the compound is of the formula IV:



IV

or a pharmaceutically acceptable salt thereof in which R_1 is branched chain alkyl of up to 6 carbon atoms, cycloalkyl groups containing 3 to 7 carbon atoms, cycloalkylalkyl groups in which the cycloalkyl group contains 3 to 6 carbon atoms and the alkyl group contains 1 to 3 carbon atoms, alkenyl groups containing 2 to 6 carbon atoms, alkynyl groups containing 2 to 6 carbon atoms and groups of formula II:

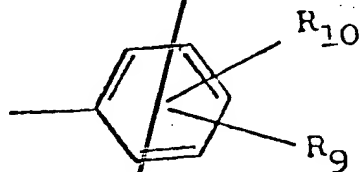


II

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C6

in which R_9 and R_{10} , which are the same or different are selected from the group consisting of H, halo and alkoxy groups containing 1 to 3 carbon atoms; in which R_2 is selected from the group consisting of H and alkyl groups containing 1 to 3 carbon atoms; in which R_3 and R_4 , which are the same or different are selected from the group consisting of H, straight or branched chain alkyl groups containing 1 to 4 carbon atoms, alkenyl groups having 3 to 6 carbon atoms, alkynyl groups having 3 to 6 carbon atoms, cycloalkyl groups in which the ring contains 3 to 7 carbon atoms, and a group of formula CHO or R_3 and R_4 together with the nitrogen atom form an optionally substituted heterocyclic ring having 5 or 6 atoms in the ring optionally containing further heteroatoms in addition to the nitrogen atom; in which R_5 is H, halo, trifluoromethyl, alkyl groups containing 1 to 3 carbon atoms, alkoxy groups containing 1 to 3 carbon atoms, alkylthio groups containing 1 to 3 carbon atoms or phenyl and R_6 is fluoro or methyl.

Claim 77. A method according to claim 76 in which R_1 is isopropyl, isobutyl, secondary butyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl or a group of the formula II:

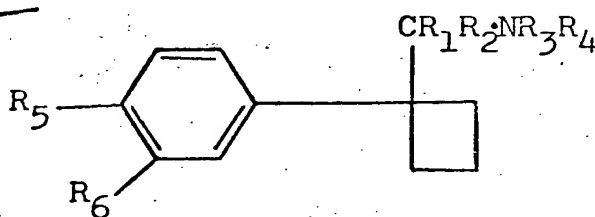


II

in which R_9 and R_{10} are selected from the group consisting of H,

fluoro and methyl, R_2 is H or methyl, R_3 and R_4 are selected from the group consisting of H, methyl, ethyl and formyl, or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing one nitrogen atom and 4 or 5 carbon atoms which is optionally substituted by one or more alkyl groups or R_3 and R_4 together with the nitrogen atom to which they are attached form a heterocyclic ring containing a second nitrogen atom which is optionally alkylated or a heterocyclic ring including one or more double bonds, R_5 is H, fluoro, chloro, bromo, iodo, trifluoromethyl, methyl, methoxy or phenyl and R_6 is fluoro or methyl.

Claim 78. A method according to claim 73 wherein the compound is of the formula III:



or a pharmaceutically acceptable salt thereof in which R_1 is isobutyl or phenyl; R_2 is H; R_3 is H, methyl or ethyl; R_4 is H, methyl or ethyl; R_5 is chloro; and R_6 is H or chloro.

Claim 79. A method according to claim 78 wherein the compound is 1-[1-(4-chlorophenyl)cyclobutyl]butylamine or a pharmaceutically acceptable salt thereof.

Claim 80. A method according to claim 78 wherein the compound is N,N-dimethyl-1-[1-(4-chlorophenyl)cyclobutyl]-butylamine or a pharmaceutically acceptable salt thereof.

Claim 81. A method according to claim 78 wherein the compound is N-methyl-1-[1-(4-dichlorophenyl)cyclobutyl]-